03050205-060

(Edisto River and South Edisto River)

General Description

Watershed 03050205-060 is located in Colleton, Dorchester, and Charleston Counties and consists primarily of the ***Edisto River*** and the ***South Edisto River*** and their tributaries from Four Hole Swamp to the Atlantic Ocean. The watershed occupies 159,521 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. The predominant soil types consist of an association of the Bohicket-Chipley-Rains-Chisolm-Yauhannah series. The erodibility of the soil (K) averages 0.15 and the slope of the terrain averages 1%, with a range of 0-6%. Land use/land cover in the watershed includes: 46.4% forested land, 21.6% forested wetland (swamp), 13.8% nonforested wetland (marsh), 9.0% water, 6.1% agricultural land, 2.6% barren land, and 0.5% urban land.

This lowest reach of the Edisto River receives the drainage from the upper reaches of the Edisto River and Four Hole Swamp. The Edisto River joins the Dawho River, which also drains into 03050205-070, and forms the South Edisto River, which drains into the Atlantic Ocean. The Edisto River is classified FW from its origin downstream to its intersection with U.S. 17, and below this point to its confluence with the Dawho River, the river is classified ORW. Cold Water Branch, Deep Creek (Maple Cane Swamp, Horse Pen Branch), and Sandy Run (Big Bay Swamp, Craven Branch, Boston Branch) drain into the Edisto River at the top of the watershed. Further downstream near the Town of Jacksonboro, the Edisto River accepts drainage from Spooler Swamp, Bull Bridge Creek, Allen Meadow, Penny Creek (Adams Run), Horse Creek, and Ashe Creek.

The South Edisto River is classified ORW from its headwaters to Mud Creek, and below Mud Creek to the Atlantic Ocean the river is classified SFH. Mosquito Creek, Sampson Island Creek, and Alligator Creek are all classified ORW and drain into the upper portion of the South Edisto River. Mosquito Creek connects to the Ashepoo River (Salkehatchie River Basin) through Bull Cut, and the Edisto River connects to watershed 03050205-070 through the Dawho River and Watts Cut (SFH). Further downstream, St. Pierre Creek accepts drainage from Bailey Creek, Shingle Creek (Milton Creek), Store Creek, and Fishing Creek (Sandy Creek) before draining into the South Edisto River. Big Bay Creek (SFH) enters downstream from Fishing Creek and accepts drainage from Mud Creek (ORW) and Scott Creek (ORW) near The Mound. Scott Creek also drains into the Atlantic Ocean via Jeremy Inlet (SFH).

There are a total of 143.3 stream miles, 132.1 acres of lake waters, and 8,683.1 acres of estuarine areas in this watershed. Additional natural resource areas in the watershed include Givhans Ferry State Park near the top of the watershed and Edisto Beach State Park at the base of the watershed.

Surface Water Quality

Station #	Type	Class	Description
E-015	P/INT	FW	EDISTO RIVER AT SC 61 AT GIVHANS FERRY STATE PARK

RS-01040	RS01	FW	EDISTO RIVER DOWNSTREAM OF S.C. 61, 7 MI NE OF COTTAGEVILLE
MD-119	P/W	FW/ORW	EDISTO RIVER AT US 17, 12.5 MILES NW OF RAVENEL
MD-260	INT	SFH	S. EDISTO R. AT NORTHERN CONFLUENCE WITH ALLIGATOR CREEK
MD-244	W/SPRP	SFH	SOUTH EDISTO RIVER BELOW ST. PIERRE CREEK
RO-01123	RO01	SFH	SOUTH EDISTO RIVER MOUTH, 1 MI NW OF EDISTO BEACH

Edisto River – There are three SCDHEC monitoring sites along this section of the Edisto River and recreational uses are fully supported at all sites. At the upstream site ***(E-015)***, aquatic life uses are fully supported; however, there are significant increasing trends in turbidity and total suspended solids. There is a significant increasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. Aquatic life uses are also fully supported further downstream at ***RS-01040***.

At the furthest downstream site ***(MD-119)***, aquatic life uses are again fully supported; however, there is a significant increasing trend in turbidity. There is a significant increasing trend in pH. A high concentration of lead was measured in the 1997 sediment sample, and P,P'DDD was detected in the 1998 sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters.

South Edisto River **-** There are three SCDHEC sites along the South Edisto River. At the upstream site ***(MD-260)***, aquatic life and recreational uses are fully supported. Further downstream ***(MD-244)***, aquatic life uses are fully supported and a significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are fully supported and a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter. This is a tidally influenced system with significant marsh drainage, characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions occurred at MD-260 and MD-244, they were typical of values seen in such systems and considered natural, not standards violations. At the furthest downstream location ***(RS-01123)***, aquatic life uses are not supported due to occurrences of turbidity in excess of the aquatic life standard. Recreational uses are fully supported.

A fish consumption advisory has been issued by the Department for mercury and includes portions of streams within this watershed (see advisory p.38).

Shellfish Monitoring Stations

Station #	**Description**
13-01	SCOTT CREEK AT THE MOUND
13-02	MOUTH OF BIG BAY CREEK
13-03	MOUTH OF ST. PIERRE CREEK
Station #	**Description**
13-04	ST. PIERRE CREEK AT PETERS PT.
13-05	FISHING CREEK AT SANDY CREEK
13-05A	UPPER REACHES OF SANDY CREEK
13-06	CONFLUENCE OF SHINGLE CREEK AND BAILEY CREEK
13-07	STORE CREEK OPPOSITE HOUSE WITH DOCKS ON RIGHT

13-08	EDISTO RIVER AT ASHEPOO RIVER
13-09	FISHING CREEK AT OYSTER PLANT
13-10	FISHING CREEK AT POLLUTION LINE
13-12	HEADWATERS OF FISHING CREEK PAST OYSTER PLANT
13-17	CONFLUENCE OF WATTS CUT AND SOUTH EDISTO RIVER
13-18	CONFLUENCE OF RUSSELL CK AND WATTS CUT
13-20	NORTHERN CONFLUENCE OF ALLIGATOR CK AND S. EDISTO RIVER
13-21	BIG BAY CREEK HEADWATERS AT FIRST BEND TO RIGHT PAST THE NECK
13-22	HEADWATERS OF SCOTT CREEK AT JEREMY INLET AT THE BOAT LANDING
13-23	JEREMY INLET AT ATLANTIC OCEAN
13-24	FRAMPTON INLET AT NORTH END OF JEREMY CAY
13-25	FRAMPTON INLET AT ATLANTIC OCEAN
13-27	FRAMPTON INLET UPSTREAM OF BOAT RAMP PAST FIRST BEND
13-28	CONFLUENCE OF SHINGLE CREEK AND MILTON CREEK
13-29	BAILEY CREEK, FIRST BEND ADJACENT TO BLUFF ON BAILEY ISLAND (NEAR CONFL. WITH ST. PIERRE CREEK)
13-30	BAILEY CREEK AT CONFLUENCE WITH UNNAMED TRIBUATARY NEAR SW POINT OF SCANAWAH ISLAND
13-31	BAILEY CREEK AT CONFLUENCE WITH SOUTH EDISTO RIVER

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-095	GB	TERTIARY LIMESTONE	EDISTO BEACH WELL 4

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / ***FACILITY NAME*** / ***PERMITTED FLOW @ PIPE (MGD)***	***NPDES#*** / ***TYPE*** / ***COMMENT***
SANDY RUN	SCG730261
FOSTER DIXIANA CORP./SANDY RUN MINE	MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R	

Nonpoint Source Management Program

Land Disposal Activities

Land Application Sites

LAND APPLICATION SYSTEM / ***FACILITY NAME***	***ND#*** / ***TYPE***
SPRAY IRRIGATION	ND0063789
TOWN OF EDISTO BEACH/FAIRFIELD GOLF COURSE	DOMESTIC
SPRAYFIELD	ND0071510
JEREMY CAY	DOMESTIC

Mining Activities

MINING COMPANY / ***MINE NAME***	***PERMIT #*** / ***MINERAL***
FOSTER DIXIANA CORP.	0755-29
SANDY RUN MINE	SAND

BANKS CONSTRUCTION CO. SANDPIT ROAD MINE	1076-35 SAND
BOHICKET CONSTRUCTION CO., INC. EDINGSVILLE ONE	1090-19 SAND; SAND/CLAY
TRI-COUNTY INVESTMENTS LLC. MAD DOG #3 MINE	1105-35 SAND
POWERS MINING CO. POWERS PIT	1378-29 SAND; SAND/CLAY
BANKS CONSTRUCTION CO., INC. BIVENS MINE	1273-35 SAND; SAND/CLAY
ROGERS & SON CONSTRUCTION CONE TRACT/ASHLEY DISTRICT	1350-35 SAND; SAND/CLAY

Water Quantity

WATER USER (TYPE) ***WATERBODY***	***REGULATED CAPACITY (MGD)*** ***PUMPING CAPACITY (MGD)***
CITY OF CHARLESTON EDISTO RIVER	100.00 150.00

Growth Potential

A high growth potential is projected for the upper portion of the watershed surrounding the Cottageville area. The Cottageville growth along U.S. Highway 17A to Charleston is one of the fastest growing areas in the state. There is a low to moderate growth potential for the lower portion of the watershed, primarily in the unincorporated areas centered around the Town of Edisto Beach. Much of the growth is tourism-based and thus elicits primarily seasonal influence on the area. Only a small proportion of the town is sewered and there are no plans to expand the sewer service area. However, the Town of Edisto Beach will extend sewer lines to serve areas where septic systems have failed (at owner expense). The ORW classification of most of the waters in this watershed prohibits new point source discharges of wastewater to surface waters. Growth that occurs will have to rely primarily on septic tanks and/or land application systems.